

News

AVRO

APRIL 1950



AVRO News

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ALL MATERIAL IN THIS MAGAZINE MAY BE
REPRODUCED, ACKNOWLEDGMENT OF THE
SOURCE WOULD BE APPRECIATED.

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AVRO VIEWS

British United Press widely circulated our story in Avro News about 11-year-old Ted Rushton, of Orillia, who in writing us for material assured us he was "not a spy or working for other spies." Now comes a letter from another reader, Larry Smith, of Long Branch, who noticed our piece about Ted. Larry says he is "16 years old and an active member of the Royal Canadian Air Cadets. I hate the Russians and I am a model aircraft builder," he says. "I hope this relieves you of any doubt I work for a foreign country." OK, Larry, we'll screen you as eligible for material as well.

Incidentally, "Plant Administration" Magazine of March reprinted Jack Nesbitt's article in our December issue on "Jet Engine Jinxes."

Bob Bradford won the prize this month not only for his current cartoons but for a long enjoyable series of them.

COVER

Jimmy Doolittle, noted U.S. flier and Shell Oil's vice-president, seems well pleased with the pilot's seat in the Jetliner, soon to make the first U.S. appearance of a jet transport. He recently said his country was two years behind us in jet transportation and "getting further behind everyday."

Photo by Hugh McKechnie.



OUR SO-CALLED JET LEAD

We are too apt to accept with complacency that we are flying the first inter-city jet transport in the world and the first of any type in this hemisphere. The United States to her dismay has not produced a jet transport as yet of any description.

As is well known, the United States at first was inclined to scoff at the Jetliner as being too far advanced for today's air transport needs. Now, however, such large aircraft firms as Boeing admit that the Jet Age is just around the corner and that a jet transport with our characteristics best meets the United States requirements. They are prepared to produce a rival to the Jetliner in a very short time.

We must keep in mind that the United States has proved its amazing ability to catch up with any lead established by others in the aviation field. The beginning of the last war saw the United States unprepared in the air. In a few short years they built up practically from scratch the greatest air armada ever seen. The USAAF helped considerably in bringing the once-proud Luftwaffe to defeat.

Our jet lead is only good to us if we take every advantage of it. United States aircraft manufacturers are now seeking prototype legislation and government orders for jet transports and there is every possibility they will soon be our active competitors. Various United States airlines have expressed interest in the Jetliner and we should do everything we possibly can to stimulate their interest to the buying point. The appearance of the Avro Jetliner in New York this month is the first chance we have had to demonstrate in the U.S.A. the tremendous advantages of this new form of transportation which makes everything else in the air look primitive. The hopes of Avro Canada and indeed of the whole country anxious to obtain a favorable balance of trade with our great neighbour goes with our aircraft.

PATTERN FOR

Jetflight

THE CF-100 AND JETLINER AT MALTON, JUST BEFORE THEY FLEW TO OTTAWA LAST MONTH FOR THE OFFICIAL DEMONSTRATION OF THE FIGHTER

The Jetliner and the Avro CF-100 fighter both made speed runs to Ottawa from Malton last month, a fitting introduction to the spectacular official demonstration of our fighter at Rockcliffe Airport March 11. This inter-city flight of the Jetliner was the first by a jet transport for this hemisphere.

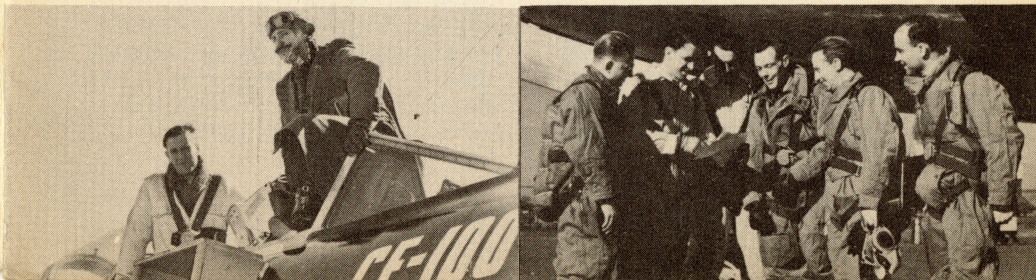
This pattern will probably be followed when other cities are visited by either or both aircraft. This month the Jetliner makes the first jet transport appearance in the United States at New York. Later in the summer the Jetliner and probably the fighter will cross the North Atlantic en route to the SBAC show in England in September. Later a tour of Europe will be made.

Time of the Jetliner to Ottawa was 36 minutes 5 seconds as compared to the scheduled airline time on the same route of 1 hour and 40 minutes. Average speed of the Jetliner was 395 m.p.h., 100 m.p.h. faster than the fastest airliner in service.

The Jetliner also took part in the demonstration of the fighter. Attending the show were the Governor General, Prince Bernart of the Netherlands, high ranking members of the Canadian and foreign governments, RCAF officials and many others.

The fighter also made good speed on the way down, traveling at an average clip of 535 m.p.h. No attempt was made to fly either aircraft at their maximum speed. Accompanying Bill Waterton in the back

LEFT: JOHN FROST AND BILL WATERTON JUST AFTER THEIR RECORD HOP TO OTTAWA LAST MONTH IN THE CF-100. RIGHT: WITH THE EXCEPTION OF FRANK SPINK (LEFT) THESE ARE THE CREW MEMBERS OF THE JETLINER WHEN IT SLASHED THE AIRLINE TIME FROM TORONTO TO OTTAWA. LEFT TO RIGHT: MSSRS. ROGERS, BAKER, COOPER-SLIPPER, FLOYD AND PESANDO.





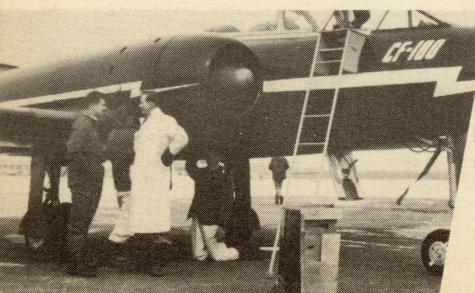
OTTAWA OFFICIALS GAZE AS THE CF-100 AND JETLINER ARE PUT THROUGH THEIR PACES



AFTER THE SHOW, THE AIRCRAFT WERE INSPECTED ON THE GROUND. PRINCE BERNHART OF THE NETHERLANDS CONGRATULATES DEFENSE MINISTER CLAXTON ON THE DISPLAY



LEFT TO RIGHT: OUR E. H. ATKIN GOVERNOR-GENERAL ALEXANDER, DEFENSE MINISTER CLAXTON, BILL WATERTON, PRINCE BERNHART, NETHERLANDS AMBASSADOR VAN ROIJEN AND ACTING CHIEF OF AIR STAFF JAMES. BELOW: ERIC PECKHAM AND THE GROUND CREW DID A BANG-UP JOB, TOO



seat of the fighter was John Frost, the designer of the powerful aircraft.

The crew of the Jetliner were the same men who established the new North American speed record for an air transport of 500 m.p.h. last November. In addition to Don Rogers, the pilot, there were Mike Cooper-Slipper, his assistant; Bill Baker, flight engineer; Mario Pesando, test engineer, and Jim Floyd, designer of the Jetliner.

Ottawa took Avro Canada to its heart that weekend. Banner headlines flashed the news: "Toronto to Ottawa by Jet in 26 Minutes—'Loafing' Reports Pilot;" and "Jet Scorches Ottawa Skies at 600 m.p.h. — Zips Up Sitting On Tail — New Fighter Outstrips Its Own Sound." You could hardly turn on the radio at Ottawa without hearing advance interviews, on-the-spot descriptions, commentaries and rebroadcasts of the event. Newsreel and other photographers had a field day. The demonstration was the talk of the town at diplomatic cocktail parties, in the Press Gallery, and in many homes.

And well it should have been. The Avro CF-100 particularly put on a wonderful display. To quote Jim Hornick, of "The Globe and Mail:"

"Despite low-hanging mist which was fast shrouding the airfield, Bill Waterton tucked his handlebar mustache into the small CF-100 cockpit and whistled down the snow-speckled runway for a take-off in

1,000 feet. Almost immediately, even before the tricycle landing gear was fully retracted, he pulled into a 60-degree angle climb that brought audible astonishment from the crowd.

"Within seconds the 16-ton fighter was lost in the overcast. The pilot's voice boomed over a loudspeaker system that he would execute half-loops and half-rolls, aerobatic maneuvers never before attempted in the CF-100's test program.

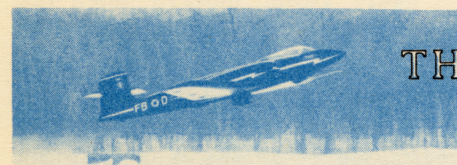
"He turned constantly within the radius of the airport, a feat considered remarkable with the smaller, slower Vampire, and just to show that it

could be done, he lowered the flaps and reduced the thrust to flutter over a hangar at 115 miles an hour. The fighter's stalling speed is just over 95 m.p.h.

"Waterton executed a perfect slow-speed landing as S/L Shan Badeau, one of the RCAF's Vampire aces, told a radio interviewer: 'It's one of the most amazing demonstrations I've ever witnessed.'

"The big Jetliner's performance, too, evoked whistles of amazement.

"Though not as spectacular the flight pattern was similar. It included a series of low-level gentle banks and turns...."



AVRO CF-100 ON THE UP-GRADE AT OTTAWA

THAT NEEDED LIFT

Harry Keast CHIEF AERODYNAMICIST
GAS TURBINE DIVISION

During the last war operational pilots started to come back to their fields with stories that their fighters had suddenly become unmanageable at high speeds. The first symptom was a frightening vibration of the aircraft, then the nose would drop and the controls of the aircraft would become solid and unmoveable and nothing that the pilot could do would check the machine as it plunged towards the ground. Some types of aircraft would just as quickly become docile and obedient when they reached low altitude but others carried on in this uncontrollable dive

right into the ground.

Aerodynamicists recognized the trouble: the airflow over the wing was reaching the speed of sound in places. Why should the speed of sound have anything to do with the behavior of an airplane? Well, imagine a pedestrian crossing a road jammed with people. A fire-reel comes wailing its way towards them. Everyone hears the siren and rushes to make way to allow the reel to pass. Consider the chaos which would occur if the reel was travelling faster than the sound from its siren. It would reach the crossing before anyone heard

the sound; the reel would have to plough through a crossing filled with people.

The same thing happens to the air in the path of an aircraft. In flight the aircraft compresses the air on its front surface. This compression gives rise to pressure waves similar to sound waves and travelling at the speed of sound (about 760 miles an hour at ground level). If the aircraft is flying slower than this, the pressure waves, like the sound of the siren, travel forward to give warning of the approach of the aircraft. As a result, the air in front, under the influence of the pressure waves, begins to move apart to allow the approaching aircraft to pass through. In this way the flow of air around the aircraft is smooth and easy.* If the aircraft is travelling faster than the speed of these pressure waves, the air in front receives no warning at all until it is violently torn apart by the arrival of the machine.

Here is a comparable experiment you can try the next time you are in the bathtub. Waves on the surface of water

THE LATE LAWRENCE STEINHARDT, AMBASSADOR OF THE UNITED STATES TO CANADA, WAS TRAGICALLY KILLED IN AN AIR CRASH IN MARCH. HE HAD MANY FRIENDS AT AVRO CANADA. HERE HE EXAMINES THE JETLINER WITH THE RT. HON. MR. HOWE AND MR. DEISHER

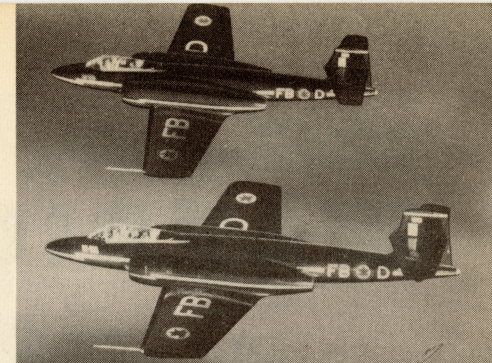


behave exactly like the pressure waves in air but they travel forward much more slowly. If you move a finger slowly through the water you can see the waves travelling forward in front of your finger and the water begins to pile up smoothly in front. This corresponds to the smooth increase of pressure in front of the aircraft travelling through the air slower than the speed of sound. Now move your finger more rapidly. You will find that the water ahead remains quite unconscious of the approach of your finger but a bow wave develops spreading back. The water, which up to that time has remained undisturbed, is suddenly swept upward when the bow wave arrives. This corresponds to the sudden violent pressure shock which smashes out from an aircraft travelling faster than sound.

Nevertheless it is possible to design aircraft which can cope with these violent conditions. One of the secrets is to change the rounded nose and wings to sharp points and knife-like edges. In fact the best way to deal with the problem is the way boat designers have dealt with the bow wave problem for years. Every boat that travels faster than the speed of surface waves on the water has a sharp bow which cuts easily through the water. The trouble is that the shape which operates well above the speed of sound is no good at all below this speed and the fact remains that our aircraft have

to land at a relatively low speed (about 100 miles per hour). The problem, therefore, is to design a wing which will work under both conditions.

The normal aircraft wing that has been used to date gives a lifting force that occurs about a quarter of the way back from the front of the wing. At speeds above the speed of sound the air flow is completely different, and it is found that this lifting force occurs half way along the wing. This was the reason why the fighter pilots found that the nose of the aircraft dropped at high speeds. The fighter had been designed carefully to make sure that the lifting forces of the wings occurred at the same place at which the weight of the airplane was pulling downward so that the two opposing forces were almost balanced. Any slight difference between their positions could be corrected simply by forces on the tail under the control of the pilot. If the nose dropped he corrected this by pulling back on the control stick. But the tail was never designed to be able to correct a sudden movement of the lifting force from a quarter of the distance from the edge of the wing to half way back. This backward movement of the lifting forces began to take place as the aircraft approached the speed of sound. The force which the pilot could apply to his control stick was entirely inadequate to move the controls far enough. Even with both feet against the dash board and



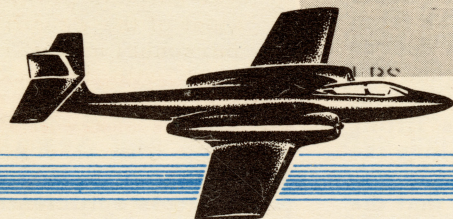
DIDN'T KNOW WE HAD TWO FIGHTERS IN THE AIR, DID YOU? WE HAVEN'T — AS YET — DESPITE THIS PHOTOGRAPH. THE PHOTOGRAPHER'S CAMERA WAS JUST SEEING DOUBLE WHEN IT TOOK THIS SHOT

straining with all his strength he could not have moved the tail controls sufficiently.

This problem has, however, been solved. It appears that very short stumpy wings do not give the embarrassing backward movement of the lifting forces when they pass through the speed of sound. In particular a triangular or delta wing behaves very well in this respect. Although much inferior to the normal wing, these do give enough lift at low speeds to allow an aircraft to land safely. When you see the next breed of fighter aircraft looking something like the triangular paper darts which we made at school, remember that they will make life easier and less uncertain for their pilots.

The compressor and turbine blades of a jet engine are actually small wing sections themselves, and at high speeds they, too, will encounter the quirks of supersonic flow. Avro Canada, with its high speed aircraft and gas turbine engines has had to face these problems and offer our own solutions.

Weekend WARRIOR



George Collinge is one Avro Canada employee who walks out of the plant gates on Friday evenings with the expression of a man who knows how his weekend is going to be spent. He is a pilot in the 400 Squadron, an R.C.A.F. reserve unit whose planes are a familiar sight over the city most weekends.

Reserve units such as this were formed at the war's end to bolster the peacetime strength of all three services, and were manned by individuals with civilian jobs who were willing to sacrifice a part of their evenings and weekends to undergo service training.

The 400 Squadron is typical of the R.C.A.F. reserve units organized to keep a number of ground crew, flying and radar personnel skilled in their trades and informed of the latest developments. During the summer months the squadron flies its Harvards and Vampire jet fighters two even-

ings a week while in the winter most of the flying is done on the weekends, one evening a week being set aside for intelligence lectures and general information.

A typical Sunday's flying may include practice in routine navigation, instrument and formation flying for the squadron's pilots as well as offensive and defensive tactics, in co-operation with the local radar unit, in which planes are sent out to make an attack on the area and defending planes are guided to intercept them by means of radar. Periodically, trips are made to the R.C.A.F. station at Trenton for air-firing and bombing exercises and in addition there are frequent combined operations with other reserve squadrons based at Hamilton and Montreal as well as with American squadrons such as the Naval Reserve unit at Niagara Falls. Air shows, too, bring occasional requests for flying displays

by the squadron.

For two weeks during the summer the squadron is placed on a full-time operational basis, the emphasis being placed on navigation and armament exercises. Last year this summer camp was located at Mohawk but this year it is being held at Chatham, New Brunswick.

The whole program is designed to create a group of trained personnel, who, together with the permanent forces, could form a nucleus for expansion in the event of war - a group which in reality is Canada's first line of defense.

A flying unit can exist only so long as it has ground crew to service its planes and keep them in the air and therefore the squadron has adopted a policy of accepting untrained men and training them on the job. For the ground crew, annual

examinations are held for the purpose of selecting men to undergo pilot training with the R.C.A.F. regulars. Those selected are taken into the permanent force for one year to be brought up to wings standard and are then released to return to their units as pilots.

Most of the squadron's flying personnel had wartime experience with the R.C.A.F. - George Collinge had six years - and many of the ground crew, too, were in the air force during the war.

According to George, who seems to be as much at home in the cockpit of a Vampire as he does in the Illustration section of Avro's Sales and Service Department, flying with the reserves is a full-time hobby. He has done much illustration work on the new CF-100 fighter and he someday hopes he will get the chance to fly it.

ANONYMOUS REVISITED

In the January issue, page fourteen of "Avro News" Anonymous seems to wonder why, the ladies walk in two's. It seems to me quite clearly, and here I dare to say - He seems to know their destination, just as well as they. While other lads are pondering, over lofts and building jets, This joker sits and wonders why: the girlies go in sets.

In the February issue, at the bottom of the sheet, Printed on page eleven, is an answer short and sweet. I've read both over carefully, searching for a clue, 'Cause anonymous is the signature, signed on the latter too. But after all my reading, I'm still left in a whirl, Was the first one written by a boy, the second by a girl?

I hope the one, or maybe two, who have signed: "Anonymous" Can visualize the reader's views, without creating fuss. Methinks perhaps the verses, were by a Jekyll and a Hyde Who first is holding with the men, then takes the other side. But for all the wondering and guessing in closing this I'll say - Why worry where the women go - they'll go there anyway!

TOM HISCOCK



FLIVVERS

in the Sky

Wally Wright

PRESIDENT AND INSTRUCTOR
AVRO FLYING CLUB



In today's age of increasing passenger capacities of aircraft and speeds nearing that of sound, we are apt to regard the air as entirely the domain of super aircraft. There are, however, although for the most part unpublicized, a vast number of small aircraft, the flivvers of the sky.

These great numbers of light aircraft are serving a useful purpose in air transport. All passenger transport is not done by large airlines, as all surface passengers and goods are not all transported by railroads, buses or ships. For instance, the private automobile is responsible for more passenger miles than all other forms of transportation.

True, not a great percentage of Canadians own light aircraft. But an increasing number of individuals are using light aircraft for pleasure and business trips. A great number of people rent aircraft for these purposes because they do not do sufficient travelling to make the cost of upkeep of air-

craft practical in their particular case.

It is in this latter category that there is an opportunity for the person of average means to utilize the light aircraft for his personal needs as readily and conveniently as he uses his car. I do not for one moment suggest that a light aircraft of the types available today can replace one's car, but I do strongly support and subscribe to the theory that the average private individual can use light aircraft quite profitably to supplement his car for trips, which, by virtue of small time factor, or great distance would be impractical for an automobile.

Perhaps the easiest way for the person interested in personal flying to get into the act, so to speak, is to join a flying club. In this way the cost of purchasing and maintaining an aircraft is spread over a number of people. On this basis it becomes practical for the average person to consider using an aircraft for business and pleasure. Also it provides suf-

ficient volume of flying on the aircraft so the hourly operating cost is kept low.

The Avro Flying Club was formed with this idea in mind - to provide flying at cost to personnel of A.V. Roe Canada Ltd. The club is open without restriction to all. About 35 employees now belong. If you have a pilot's license, it is merely a matter of joining the club and getting a check-out on the Canuck and away you go. If you have not got a license, or even if you have never done any flying before, then, the club can provide first class training at very low cost by competent instructors to enable you to obtain a license, also the \$100.00 government grant.

Membership fees (for life) are \$50.00, which may be paid on an hourly flying basis of \$2.00 an hour. This \$50.00 is a direct share in the ownership of the aircraft. Aircraft rentals are cheaper than elsewhere: \$8.00 an hour dual and \$6.00 solo. There is a yearly flying fee of \$10.00 as well.

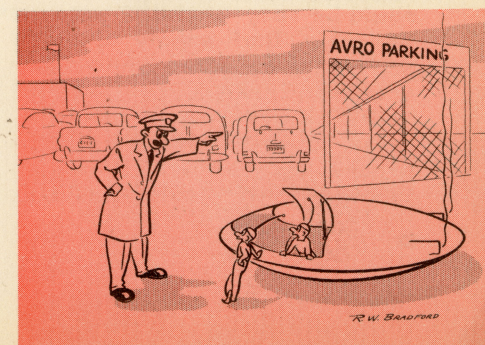
A natural question of the practical-minded person is - what kind of trips would be best made in light aircraft to my advantage? Suppose we receive a letter from dear old Aunt Mary in Windsor. She wants us to spend the weekend with her. We have but two days to get down there, visit, and get back home ready for work on Monday morning, and not be any more tired at the end of it, than absolutely necessary. So we climb into our light plane.

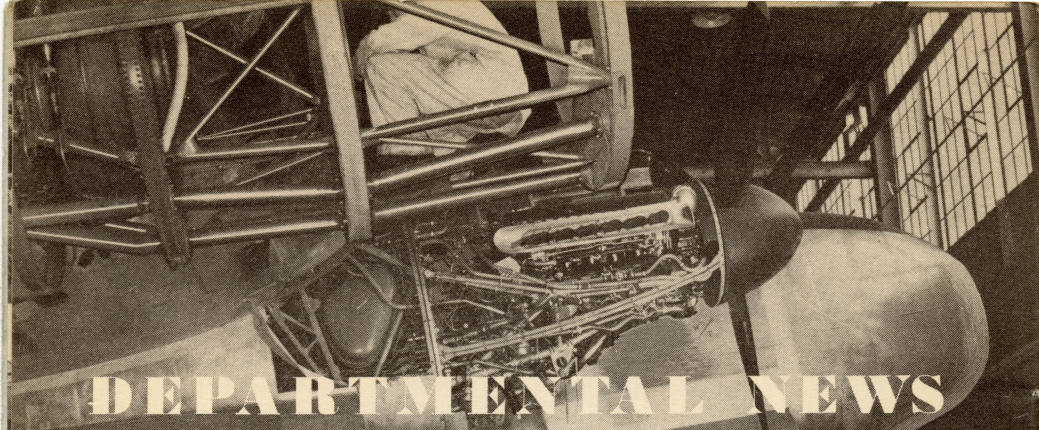
Two hours and twenty minutes later we are in Windsor. Twenty minutes later we are in Aunt Mary's living room. We have dodged the heavy highway traffic, and saved considerable time. Also, when it's time to go home, it is still only little better than a couple of hours and we're home. So we have made the most of our weekend.

On the other hand there is the long trip, anything over 500 miles. I have made two trips to Brandon, Manitoba, with our Fleet Canuck, and one with a Cessna 170. With the Canuck it took 17 hours each way flying time. Enough said for the speed. Try it with a car.

The cost? With either aircraft, about \$105.00 per passenger, return trip. The distance - 2,650 miles round trip. How does it stack up with rail and airline travel? Just check with the ticket offices for comparison. The immediate reaction from most people is that it still costs a lot of money. Agreed, but if the trip was to be made, the cost was highly satisfactory and highly competitive with other forms of transportation. I trust you will agree that for certain types of trips, the light plane is a very practical way of getting around.

NO RED STICKER, EH? NEXT LOT PLEASE!





DEPARTMENTAL NEWS

FIRST VIEW OF OUR W.C. FIELDS FLYING TEST BED - MINUS THE ORENDAS

REPORTERS

JOE BEST	SECURITY	DAISY PON	RECREATION CLUB
ELEANOR DAVIE	ACCOUNTING	PAUL NIELSON	NOBEL
KAY LUFF	SALES & SERVICE	ARNOLD RICHARDS	GAS TURBINE PRODUCTION
HARRY MACDOUGALL	AIRCRAFT DESIGN	GEORGE TIMPSON	CONVERSION & OVERHAUL
ISABELLE MCGARVEY	PURCHASING	GEORGE VALE	GAS TURBINE DESIGN
MURIEL CANNELL	GAS TURBINE EXPERIMENTAL SHOP	NORM WOOTTON	AIRFRAME MANUFACTURING
	OLIVE WURM		MATERIAL CONTROL, SHIPPING AND RECEIVING

FLYING BEDSTEAD

By the end of this month, the Avro Canada Lancaster flying test bed, affectionately called the "Bedstead" by its pilots, should be ready to test in the air the powerful Orenda engine. The front gun turret has been removed and a rather bulbous nose substituted. The suggestion has been made that the nose be painted red as it resembles W.C. Field's.

JET HAIR BLEACH

Hair bleach might not seem to have very much to do with jet engines, but according to L.G. Secord and Winnett Boyd, of the Gas Turbine Division, it could be very useful to prevent the main fuel supply of these engines from freezing. They have developed a system of using hydrogen peroxide to make sure of the fast, reliable ground starting of jet fighter aircraft, particularly important

now because jet bomber performance has rapidly been approaching that of the jet fighter.

WITH RESERVATIONS

J.A. Morley, our Sales and Service Manager, was very glad to get back to routine after visiting Cleveland on business recently. First of all he left his briefcase at the office and had to rush out and get it just before train time. Then his wife discovered he was not fully packed and this involved another nerve-wracking delay. He made the train by inches only to find he had no berth reserved - at least not for that night. Worse still, when he reached Cleveland he had no hotel reservation. Patience exhausted, he flourished a hotel confirmation - but it was for the wrong night. It appears that a certain someone was looking cross-eyed at the calendar when they made train and hotel reservations.

SERVICE RENDERED

One of the most fascinating people to talk to is Bill Baker, Flight Engineer of the Jetliner. Bill has lead a very colourful eventful life, from sunny Argentina to the frozen Arctic. While in the Arctic on a special survey expedition, Bill had a pair of sealskin mukluks (boots) given to him. Through disuse the mukluks became so hard and stiff as to be unwearable. News of this reached an old Eskimo woman, who took it upon herself to chew the mukluks with her teeth all one night. The next morning when Bill looked for his boots he found them chewed as soft as chamois leather. In payment of this unusual service, Bill offered the old crone a package of cigarettes. She helped herself to two from the package, and promptly ate them both.

COPY CATS

Remember those pantograph machines which used to be (and probably still are) sold as toys? They can be used to reproduce drawings larger or smaller or the same size as the original.

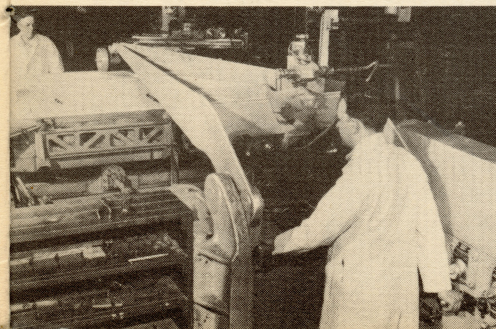
Avro Canada has developed the machine to reproduce three dimensional surfaces to any desired scale. L.E. Marchant, V.W. Hall and J.O. Creek are responsible for its design.

We apparently use the machine in the manufacture of such highly accurate articles as gas turbine blades. By employing a master pattern larger than the article to be duplicated, forging dies, reproduction masters and the like can be produced by a reduction process so that the errors will be proportionally reduced to negligible size. The machine is so sensitive that the image of a piece of "Scotch" tape on the surface of the master pattern is readily noticeable on the surface of the workpiece.

CHARGE DISMISSED

Alfred Eddy, of the Aircraft Details Shop, won an acquittal in court recently on a charge of careless driving outside the plant by saying that our parking lot is like a "battlefield" at quitting time. Maybe this has something to do with the "battle of the jets" we hear so much about these days.

LEFT: L.E. MARCHANT, V.W. HALL, J.O. CREEK ARE RESPONSIBLE FOR THE DESIGN OF OUR NEW PANTOGRAPH COPYING MACHINE. WE USE THE MACHINE IN THE MANUFACTURE OF SUCH HIGHLY ACCURATE ARTICLES AS GAS TURBINE BLADES. RIGHT: JUST BEFORE THE BATTLE. MOTHER



OUTDOOR TYPES

Elsie Boston, of Routine Section, recently placed second in a fly-tying competition held by the Toronto Hunters and Anglers Association, of which Elsie is a member. The big thrill for Elsie was the fact that she placed second in a large class of male competitors, and was the only girl to compete.

Pat Monroe, Cost Accounting, has just returned from a week's holiday in the snows of Quebec. Pat is quite a gal for hickory-trickery and realized her big ambition to ski down the formidable slopes of Mount Tremblant. She has the bruises to prove it.

BITER BIT

Our editorial director, Murray Willer, received a ticket the other day for parking across a driveway although he thought he had left room for the owner to leave. A little detective work on his part uncovered the interesting fact that the person responsible for giving him the ticket was Roy Burney, of Photographic Department, who occasionally does work for him. However, they're still friends - or say they are.

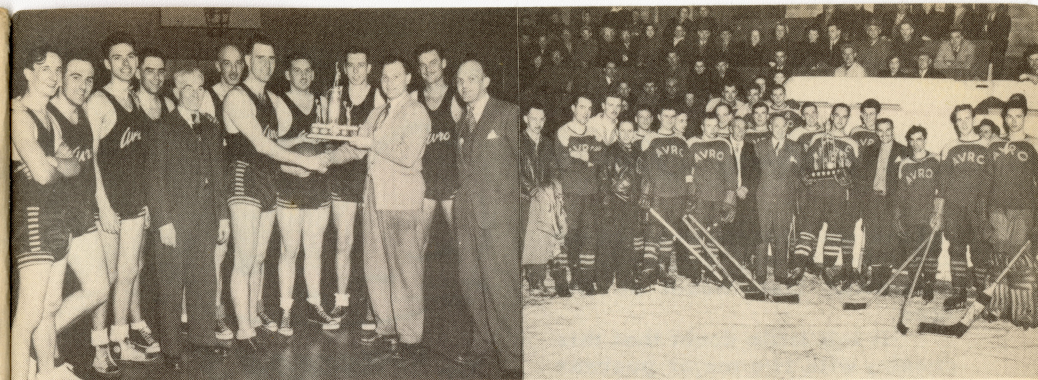
AVRO ART CLUB

Recent reports on the newly-formed Art Club find it progressing favourably with promising talent being discovered in

the group. The program of the club is very flexible, and covers several mediums of expression, - quick sketching, life, and with the approach of better weather, landscapes in water colours and oils. The group has quite a large membership, and meet once every two weeks with lectures, demonstrations, and exhibitions being the order of the evening. Anyone interested in joining this group should contact Bryan Wood, Local 231.

WITH BRUSH IN HAND

While pursuing the subject of Art, we discovered several budding artists whose chief interest is oil painting. Len Cooper, of Airframe Design, likes to spend a restful weekend painting the local scenery around Toronto. Len finds it economical to prepare his own canvas, and recently exhibited several of his pictures at a recent showing of the Leaside Art Club. He modestly admits that he has sold quite a few of his pictures. Helen Aitken, of Progress Engineering, also likes to daub in oils, and has some very fine pictures to her credit. Helen tells us she has sold some of her pictures, but even so the Aitken family are wondering just where to find wall space to hang Helen's next picture. Gil. Dunkin, of Sales & Service, prefers to relax with a paintbrush, and takes advantage of the scenic material near his home at Port Credit.



CHAMPION AVRO BASKETBALL AND HOCKEY TEAMS GET THE CUPS

RECREATION

On the strength of so many inquiries, plans have been made for the formation of a model aircraft club. We feel that an organization like this will bring more effective results than any scattered individual effort. In the very near future we hope to obtain an A.M.A. charter which will be an effective means of keeping the organization alive. With this official recognition, the group may then be represented in local, provincial or regional conferences. Such an organization which is affiliated with the national movement has the benefit of national recognition. In all ways their activities take on greater importance because of their association with the governing organization.

March 30th will go down in

the annals of the Recreation Club as one of the most successful events we've had to date. The exhibition game between the Brampton-Toronto All Stars and the Avro Seniors was a great display of fast hockey. A feminine touch was added to the evening's entertainment when the Turbo girls played the Aircraft girls in a pretty evenly matched game. The hilarious broom ball game brought laughs to both the young and the old. A top notch specialty act was given by Don Cribar between the games. He certainly deserved the great ovation the crowd gave him. The highlights of the evening were brought to a successful conclusion with a bang-up moccasin dance.

DAISY PON
TED COLVILLE

ICE CARNIVAL LEFT: A BARRELFULL OF FUN; CENTRE: AVRO CANADA MIXES IT UP WITH BRAMPTON TORONTO ALL STARS; RIGHT: GIRLS!



As Others See Us

More quotable quotes on-the CF-100 and Jetliner demonstration last month at Ottawa:

"It left little doubt that this country with two major postwar strides has definitely and spectacularly come of age in the world of aviation.....The CF-100 showed the power of a percheron and the delicate finesse of a racehorse." (Canadian Press)

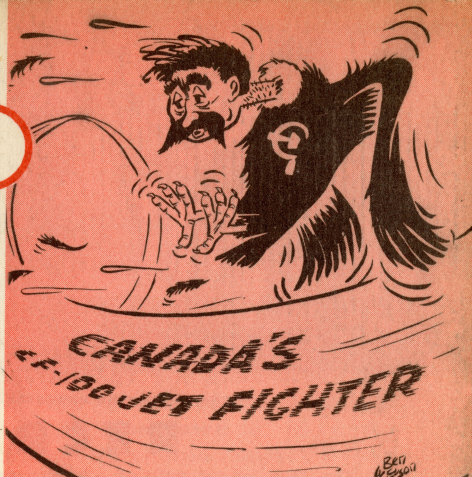
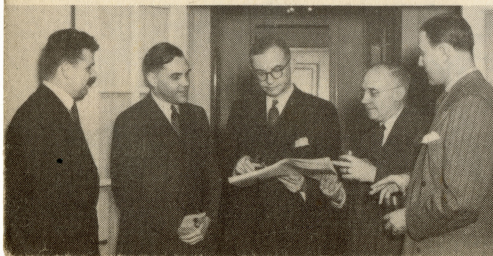
"The R.C.A.F. motto used to be Per Ardua ad Astra but it became Per Facilitatem ad Astra as the new Canadian CF-100 whipped into the air after a short take-off..... This 12,000 horsepower airplane travelled as lightly as a wisp of black thistledown." (Ottawa Citizen)

"That Avro jet 'plane is shown to climb sharply like a meat price." (Toronto Telegram)

"Cette envolée de Toronto à Ottawa (ours, of course) s'est effectuée en 26 minutes. C'est un peu moins que le temps requis pour se rendre en auto de Montréal à Dorval." (Montreal Le Canada)

"The new CF-100 jet fight-

DR. O. M. SOLANDT, DEFENSE RESEARCH BOARD HEAD AND DEFENSE MINISTER CLAXTON INSPECT THE CF-100'S HEADLINES AFTER ITS OTTAWA DEMONSTRATION



"WHO INVENTED IT FIRST JOE?"
CARTON USED IN TEN THOMPSON DAILY NEWSPAPERS OF ONTARIO AND QUEBEC

er will take you to Toronto in 26 minutes, if anyone wants to go to Toronto." (Ottawa Citizen)

"Sometime during 1951 a squadron of these shark-nosed CF-100's will be formed as an air defense group that the R.C.A.F. is striving to develop.

"The American air force observers who watched the show described the performance as 'fantastic'. They were impressed by the short run for take-off and the breath-taking climb as soon as the wheels were off the ground.

"There is a possibility that Australia and countries of Southeast Asia where long range fighter operations are essential may be interested" (in buying them). (Ross Munro of Southern Newspapers)

Incidentally the only fault we had with Ross's story was that it was illustrated by mistake with one of those obsolete piston-engined aircraft.